

section 106. As shown in Fig. 10, section 98 extends downward into approximate top center of a spherical pivot ball section 102, a mid arm section 104 ~~extending~~ extends downward from approximate bottom center of section 102 and transitions to section 106 (see Fig. 3). As shown in Fig. 3A, slot 100A comprises rounded sides, upwardly tapering until touching together and transitioning to slit 110, and slit 110 upwardly tapering and transitioning to hole 100B. In the preferred embodiment, a lathe turned actuator arm made of pomalux, acetyl copolymer, provided by Tropical Plastics of Clearwater Fl, was used to illustrate a working injection molded arm 96. However, the actuator arm can be injection molded using pomalux, acetyl copolymer, polyethylene, polypropylene, vinyl, nylon, rubber, or any other material that can be injection molded.

Referring to Fig. 4, a PC board mountable lamp socket 56 is shown receiving a filamented incandescent screw based lamp 57, and a PC board mountable electro magnetic buzzer 60. In the preferred embodiment, the lamp socket part, ES 544 with the E-5 based lamp, 9.6v 0.5A 04.7x15mm, and the electro magnetic buzzer part FTMB-12, Spl: 85db/10cm, rated voltage 12 vdc, rated current: 40mA, were provided by Shogyo

arm 96, by allowing line 38 to be pulled through slit 110 and into hole 100B, as increased tensioning to line 38 occurs thus relieving arm 96 of tension from line 38. The large opening in slit 110 and hole 100B ~~for allowing~~ allows line 38 freedom of forward movement to any desired location when line 38 is cast, by supplying zero resistance of forward and backward line movement within slit 110 and hole 100B.

Socket 56 receiving lamp 57, and buzzer 60 are a second means for luminating and sounding visible and audible alarm signals respectively, by displaying light and producing sound, alerting the angler to the presence of a fish that is either nibbling on a bait or that has been hooked.

Switch 66 comprises of housing 68 for integrally holding terminal pins 74 and 76, support pins 72, switch lever 78, contact point 88, contact arm 86, and top 92 including stop pin 94. Pins 74 and 76 are soldered to lamp 57, buzzer 60, and connector 31 allowing switch 66 to function as a whole, for closing and opening the electrical circuit of alarm 20. Support pins 72 connect on bottom side of board 50, giving housing 68 more stability, than just soldered terminal pins 74 and 76 would by themselves. Switch 66 is a third means for completing the electrical circuit delivering electrical energy

27 secures battery 29 inside the opaque injection molded cylindrical plastic housing, by allowing battery 29 to be snapped securely into place, eliminating the possibility of battery 29 moving around within alarm 20. Lamp hole 58 and buzzer hole 62 ~~for-allowing~~ allow lamp 57 and buzzer 60 to be installed and seen and heard externally from alarm 20, by enabling a screw base of lamp 57 to be installed through lamp hole 58 and into lamp socket 56, from an exterior side of housing body 36, leaving the luminating portion of lamp 57 externally exposed from housing body 36, and by aligning the sound hole in buzzer 60 with buzzer hole 62 in housing body 36, allowing the audible alarm signal to pass outwardly through buzzer hole 62. Board pins 53 secure printed circuit board 50 inside housing body 36, by aligning with, and being received by the plurality of stationary board pin holes 51 within board 50 at the plurality of points. Board pins 53, and interior section 42 evenly balance and fortify the edge and center of board 50 when board 50 is installed onto board pins 53 and interior section 42, by portions of the board pins being the same height as open ended interior section 42, and board pins 53 positioned inward from the outer circumference of the interior side of housing bottom 40 at the plurality of